

Title (en)
DRIVE DEVICE FOR ROTATION BODY

Title (de)
ANTRIEBSVORRICHTUNG FÜR ROTATIONSKÖRPER

Title (fr)
DISPOSITIF D'ENTRAÎNEMENT POUR UN CORPS DE ROTATION

Publication
EP 2154296 A1 20100217 (EN)

Application
EP 08751808 A 20080523

Priority
• JP 2008001299 W 20080523
• JP 2007143285 A 20070530

Abstract (en)
A hydraulic excavator includes a rotation motor (31) for rotating an upper rotating structure. The rotation motor (31) includes an electric motor (32), a hydraulic motor (40), and a reduction gearbox (33). The hydraulic motor (40) includes a motor mechanism (50) and a clutch mechanism (70). The motor mechanism (50), which is a vane-type hydraulic motor, is engaged with/disengaged from a motor shaft (37) by the clutch mechanism (70). When rotation speed of the upper rotating structure is low, and a required value of output torque of the rotation motor (31) is high, an operation of driving the output shaft (35) by the hydraulic motor (40) is performed in the rotation motor (31).

IPC 8 full level
E02F 9/12 (2006.01); **E02F 9/20** (2006.01)

CPC (source: EP US)
E02F 3/325 (2013.01 - EP US); **E02F 9/121** (2013.01 - EP US); **E02F 9/123** (2013.01 - EP US); **E02F 9/128** (2013.01 - EP US); **F01C 21/008** (2013.01 - EP US); **F03C 2/304** (2013.01 - EP US); **F15B 21/14** (2013.01 - EP US); **F04C 2240/45** (2013.01 - EP US); **F04C 2270/03** (2013.01 - EP US); **F04C 2270/052** (2013.01 - EP US); **F15B 2211/88** (2013.01 - EP US)

Cited by
CN105637745A; EP2503065A3; CN103443363A; CN103547742A; CN105804146A; CN103222152A; EP2620555A4; US10267149B2; WO2015021003A3

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
EP 2154296 A1 20100217; **EP 2154296 A4 20120418**; JP 2008297754 A 20081211; JP 4311478 B2 20090812; US 2010162706 A1 20100701; US 8505290 B2 20130813; WO 2008149502 A1 20081211

DOCDB simple family (application)
EP 08751808 A 20080523; JP 2007143285 A 20070530; JP 2008001299 W 20080523; US 60165808 A 20080523